## WHAT IS CLAIMED IS:

1. A fuel cell comprising:

an anode:

a cathode, the cathode and the anode being capable of receiving an electrolyte therebetween, the cathode and the anode being capable of having respective reactants passed over them; and

a bipolar plate, the bipolar plate being subdivided into a plurality of reaction areas, each of the reaction areas including a respective reactant inlet port and a respective reactant outlet port for each of the respective reactants, the bipolar plate being capable of having a heat transport medium passed therethrough via a heat transport medium inlet and a heat transport medium outlet port.

- 2. The fuel cell as recited in claim 1 wherein the electrolyte includes a polymer electrolyte membrane.
- 3. The fuel cell as recited in claim 1 wherein the heat transport medium includes water.
- 4. The fuel cell as recited in claim 1 wherein a first of the plurality of reaction areas is capable of having the heat transport medium passed therethrough via the heat transport medium inlet and outlet ports, and wherein a second of the plurality of reaction areas is capable of having a heat transport medium passed therethrough via a second heat transport medium inlet port and a second heat transport medium outlet port, and further comprising a flow control device configured to separately control respective flows of the heat transport medium over the first and second reaction areas.
- 5. The fuel cell as recited in claim 1 further comprising a flow control device configured to

vary a flow rate of the heat transport medium.

- 6. The fuel cell as recited in claim 1 further comprising a temperature measuring device configured to measure a respective temperature of each of the plurality of reaction areas.
- 7. The fuel cell as recited in claim 6 further comprising a flow control device configured to influence a flow of at least one of the respective reactants and the heat transport medium as a function of at least one of the respective measured temperatures.
- 8. A method of activating a fuel cell, the fuel cell including an anode, a cathode and a bipolar plate, the bipolar plate being subdivided into a plurality of reaction areas, the method comprising:

heating a first of the reaction areas to a reaction temperature by the heat transport medium;

providing reactants initially only to the first reaction area; and providing a second of the reaction areas with the reactants after the second reaction area has been heated to the reaction temperature.

- 9. The method as recited in claim 8 wherein the providing the second of the reaction areas with the reactants is performed so that the reactants flow in succession over the first and second reaction areas.
- 10. The method as recited in claim 8 wherein the providing the second of the reaction areas with the reactants is performed so that the reactants flow over the first and second reaction areas in parallel.